



Final Regulation Agency Background Document

Agency name	Virginia Department of Labor and Industry/Safety and Health Codes Board
Virginia Administrative Code (VAC) citation	Amended: 16 VAC 25-90-1910.268 New: 16 VAC-25-75
Regulation title	General Industry Standard for Telecommunications, General, Approach Distances
Action title	Amendment to the General Industry Standard for Telecommunications, General, Approach Distances
Date this document prepared	January 8, 2007

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 21 (2002) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

Brief summary

Please provide a brief summary (no more than 2 short paragraphs) of the proposed new regulation, proposed amendments to the existing regulation, or the regulation proposed to be repealed. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation. Also, please include a brief description of changes to the regulation from publication of the proposed regulation to the final regulation.

The final regulation will require telecommunications employers to implement protective measures for its workers identical to those afforded general industry and construction workers under the Electrical Power Generation, Transmission and Distribution Standard, 1910.269. The final regulation will clarify that when an employee is wearing insulating gloves and/or sleeves in accordance with 16 VAC 25-90-1910.269(1)(3), those insulating gloves or insulating gloves and sleeves will only be considered insulation of that part of the employee's extremities covered by the gloves and/or sleeves. If other parts of the employee's body or extremities are exposed to energized parts inside the minimum approach distances, additional protective measures outlined in 16 VAC 25-75-1910.268(b)(7)(i) will have to be provided.

NOTE: The requested proposed amendment would not affect the minimum approach distances referenced in §1910.268(b)(7) and contained in Table R-2.

Statement of final agency action

Please provide a statement of the final action taken by the agency including (1) the date the action was taken, (2) the name of the agency taking the action, and (3) the title of the regulation.

On December 6, 2006, the Safety and Health Codes Board adopted as a final regulation of the Board the Amendments to the General Industry Standard for Telecommunications, General, Approach Distances, §1910.268(b)(7)(i), pursuant to §40.1-22(5).

Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter numbers, if applicable, and (2) promulgating entity, i.e., agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.

The Safety and Health Codes Board is authorized by Title 40.1-22(5) to: "... adopt, alter, amend, or repeal rules and regulations to further, protect and promote the safety and health of employees in places of employment over which it has jurisdiction and to effect compliance with the federal OSH Act of 1970...as may be necessary to carry out its functions established under this title."

"In making such rules and regulations to protect the occupational safety and health of employees, the Board shall adopt the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence that no employee will suffer material impairment of health or functional capacity".

"However, such standards shall be at least as stringent as the standards promulgated by the Federal Occupational Safety and Health Act of 1970 (P.L. 91-596). In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws."

Purpose

Please explain the need for the new or amended regulation. Describe the rationale or justification of the proposed regulatory action. Detail the specific reasons it is essential to protect the health, safety or welfare of citizens. Discuss the goals of the proposal and the problems the proposal is intended to solve.

The purpose of the final regulation is to amend the telecommunications standard to provide the same degree of protection to telecommunications employees working inside approach distances to live electrical lines and parts as their counterparts under the electrical power generation, transmission and distribution standard who work inside approach distances.

Substance

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. A more detailed discussion is required under the "All changes made in this regulatory action" section.

Generally, the final regulation will require telecommunications employers to implement protective measures for its workers identical to those afforded general industry and construction workers under the Electrical Power Generation, Transmission and Distribution Standard, 1910.269. The final regulation will clarify that when an employee is wearing insulating gloves and/or sleeves in accordance with 16 VAC 25-90-1910.269(1)(3), those insulating gloves or insulating gloves and sleeves will only be considered insulation of that part of the employee's extremities covered by the gloves and/or sleeves. If other parts of the employee's body or extremities are exposed to energized parts inside the minimum approach distances, additional protective measures outlined in 16 VAC 25-75-1910.268(b)(7)(i) will have to be provided.

Specifically, this final regulatory amendment would replace the current regulatory language found in 16 VAC 25-90-1910.268(b)(7), Telecommunications, General, Approach Distances, and replace it with new language found in 16 VAC 25-75, Requirements for Telecommunications, General, Approach Distances.

This new unique regulation will include subsection A, which specifies that the wearing of protective gloves and sleeves only qualifies as insulation for the live electrical part upon which the employee is actually working. Also, in this subsection, the language, "No employee shall be permitted to approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in subsection B (Table R-2) of this section unless:" has been revised in response to a comment concerning the use of the term, "insulating handle," that appeared in the proposed regulation. The Agency agreed to remove the term as unnecessary and possibly leading to confusion or unintended consequences since commenter's telecommunications employees were not permitted to handle electric conductors or energized conductive objects.

Additionally, in response to comments concerning the allegation that telecommunications employees are performing work on electrical lines, the Agency revised the amendment language in paragraph 1 of subsection A to delete the language "only with regard to the energized part upon which the reference to telecommunication employees "working on" energized parts. Therefore, the revised final language reads: "The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are only considered insulation of that part of the employee's extremities covered by the insulating gloves or insulating gloves and sleeves), or"

The new subsection B, Approach Distances to Exposed Energized Overhead Power Lines and Parts, includes Table R-2, which covers voltage range and the corresponding minimum approach distances (inches).

Issues

Please identify the issues associated with the proposed regulatory action, including:
 1) *the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions;*
 2) *the primary advantages and disadvantages to the agency or the Commonwealth; and*
 3) *other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please indicate.*

1) This proposed action would require employers to further ensure the safety of their employees during work on power lines. The regulation would necessitate telecommunications employers to implement protective measures for its electrical transmission workers equivalent to those afforded general industry and construction transmission workers.

Since telecommunication electrical transmission workers are already required to be trained on methods for de-energizing or isolating or insulating themselves from live electrical parts through the use of blankets and other protective, measures already included in 16 VAC 25-90-1910.268, no significant additional cost or implementation impact for employers is anticipated.

The existing regulation allows the employee to be exposed to many uninsulated live electrical parts in his work area, but only actually be protected from touching them with his hands and arms through the use of gloves with sleeves. The effect of the proposed regulation is that, except for the live electrical part the employee is working on, all other live or “hot” electrical parts and power lines would have to be insulated so an employee could not accidentally contact an energized part or power line with some other uninsulated part of his body, or other conductive object(s).

2) The primary advantage to the Department is the uniformity of the regulations for General Industry, Construction, and Telecommunication workers performing the same type of electrical transmission work. There are no disadvantages to the Department.

3) There are no anticipated disadvantages to the public or the Commonwealth.

Changes made since the proposed stage

Please describe all changes made to the text of the proposed regulation since the publication of the proposed stage. For the Registrar’s office, please put an asterisk next to any substantive changes.

Section number	Requirement at proposed stage	What has changed	Rationale for change
16 VAC 25-75 A.1	A. No employee shall be permitted to approach or take any conductive object without an approved in insulating	<u>A. No employee shall be permitted to approach or take any conductive object [without an approved insulating handle] closer to exposed energized parts than</u>	The Agency agreed with comments by Verizon Telecom that language referring to the use of an

	<p>handle closer to exposed energized parts than shown in subsection B (Table R-2) unless:</p> <p>1. The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are considered insulation of the employee only with regard to the energized part upon which work is being performed), or</p>	<p><u>shown in subsection B (Table R-2) unless:</u></p> <p><u>1. The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are [only] considered insulation of [that part of] the employee[’s extremities covered by the insulating gloves or insulating gloves and sleeves] [only with regard to the energized part upon which work is being performed]), or</u></p>	<p>“insulating handle” is unnecessary in a telecommunications setting and could lead to confusion or unintended consequences. Therefore, the Agency revised the amendment language.</p> <p>The Agency agreed with comments by Dominion Virginia Power and Verizon Telecom objecting to references concerning telecommunications employees “working on” energized parts as unnecessary and could lead to confusion or unintended consequences since telecommunications workers are not authorized to engage in such work and that it is not the intent of the Department or the Board to allow such work. In response, the Agency revised the amendment language to address these comments received.</p>
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Public comment

Please summarize all comments received during the public comment period following the publication of the proposed stage, and provide the agency response. If no comment was received, please so indicate.

Commenter	Comment	Agency response
<p>Mr. Jay Withrow, Dept. of Labor and Industry</p>	<p>Mr. Withrow presented to the Board a summary of a meeting between VOSH Staff and members of the regulated community potentially affected by the proposed amendment the General Industry Standard for Telecommunications, General, Approach Distances, 16 VAC 25-75-1910.268(b)(7)(i):</p> <p>“In response to several contacts received from members of the telecommunications industry potentially affected by the above proposed regulation, VOSH staff met to discuss issues raised both verbally and in writing with individuals representing Dominion Power, Verizon, Cox Communications, and the Department of Planning and Budget. The meeting was held on March 16, 2006. The following individuals were in attendance:</p> <p>John Sharer, Dominion Power Joe Murphy, Dominion Power Rory (Bud) Swanson, Cox Communications George Marget, Dominion Power Mike Peck, Verizon Spencer Russell, Cox Communications Rory (Bud) Swanson, Cox Communications Melanie West, Dept. of Planning & Budget (DPB) Glenn Cox, Dept. of Labor & Industry (DOLI) David Ogburn, Verizon Jimmy Jackson, Verizon Amy Wolstenholme, DPB John Crisanti, DOLI Jay Withrow, DOLI</p> <p>Following is a summary of the meeting (this information was supplied to meeting participants after</p>	

	<p>the meeting occurred, and staff agreed that the information would be presented to the Safety and Health Codes Board during the 60-day public comment process):</p> <p>Jay Withrow provided background on why DOLI recommended the proposed regulation to the Safety and Health Codes Board and reviewed the regulatory history. He referenced previous Board action in updating the construction power generation standard at 1926.950(c)(1)(i) to provide the same protection to construction power generation workers as provided to general industry power generation workers under 1910.269(l)(2)(i) (the difference in the two standards originally came to DOLI's attention following the electrocution of a construction power generation worker, and the legal review of case law on the two standards that ensued). A second electrocution of a cable worker in 2004 resulted in DOLI recognizing that essentially the same language in 1926.950(c)(1)(i) was present in the telecommunications standard at 1910.268(b)(7)(i), which provides:</p> <p>"Approach distances to exposed energized overhead power lines and parts. The employer shall ensure that no employee approaches or takes any conductive object closer to any electrically energized overhead power lines and parts than prescribed in Table R-2, unless:</p> <ul style="list-style-type: none"> (i) The employee is insulated or guarded from the energized parts (insulating gloves rated for the voltage involved shall be considered adequate insulation), or (ii) The energized parts are insulated or guarded from the employee and any other conductive object at a different potential, or (iii) The power conductors and equipment are de-energized and 	
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	<p>grounded." (Emphasis added). (Emphasis added).</p> <p>DOLI recommended to the Board on December 14, 2004, that it initiate a regulatory process to amend 1910.268(b)(7) to provide the same protection to telecommunication workers who work in proximity to overhead power lines as that provided to construction and general industry power generation workers. The Board agreed to publish a Notice of Intended Regulatory Action (NOIRA) on the issue and the NOIRA was published on July 11, 2005 with a 30 day comment period that ended August 11, 2005. No comments were received during the comment period. DOLI recommended the Board adopt a proposed regulation at its meeting on September 15, 2005 and the Board agreed. The proposed regulation provides in part:</p> <p>"16 VAC 25-75. General. Approach Distances</p> <p>A. No employee shall be permitted to approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in subsection B (Table R-2) unless:</p> <p>1. The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are considered insulation of the employee only with regard to the energized part upon which work is being performed), or</p> <p>2. The energized part is insulated or guarded from him and any other conductive object at a different potential, or</p> <p>3. The power conductors and equipment are de-energized and grounded." (Emphasis added)."</p>	
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	<p>The proposed regulation [at the time of this meeting] is currently undergoing an internal state review by the Department of Planning and Budget prior to the Secretary's Office and then the Governor's Office. Mr. Withrow made clear that the proposed regulation must first go through that review process and would then be formally published and be subject to a 60 day comment period and public hearing, so that all interested parties still have ample opportunity to submit formal comments on the proposed regulation. The purpose of this meeting was primarily to assess any economic impact or hardship that the proposed regulation could have on the regulated community, employees and the Department.</p> <p>Mr. Withrow also clarified how the regulation would be enforced by DOLI (i.e., the options available under §1910.268(b)(7) are only available for use when the employer is going to work inside the R-2 approach distances, and that current business practice is that telecom employers assure that their employees stay outside of the R-2 approach distances - and in the very few cases where the telecom employer needs to operate inside the R-2 approach distances, they contact the power company to take appropriate actions for insulating or de-energizing the lines).</p> <p>Mr. Withrow also acknowledged informal discussions with both Verizon and Dominion Power officials and comments received to date (see attached correspondence from Verizon dated February 20, 2006).</p> <p>Mr. Withrow informed the group that it had been and continued to be the position of the Department that the proposed regulation would impose no significant additional cost or implementation impact on telecommunication employers based on DOLI's understanding of current</p>	
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	<p>business practices (see attached Economic Impact Analysis by the Virginia Department of Planning and Budget (DPB) for proposed regulation 16 VAC 25-75, dated June 12, 2006). To assess potential economic impact, the group discussed several specific work activities undertaken by Verizon and Cox Communication workers and what if any impact the proposed regulation would have on them. After discussing the work activities, DOLI indicated that it did not feel that the proposed regulation would interfere with them as discussed or impose any significant additional cost to employers; and that DOLI would be willing to include interpretive language into the administrative record for the proposed regulation to formally address the work activities as outlined below.</p> <p>Mr. Withrow further noted that to formalize the interpretive language it would have to be added in response to comments raised during the 60-day public comment period or public hearing. The following work activities were discussed:</p> <ol style="list-style-type: none"> 1. Setting poles in power - Verizon raised this work activity as an area they were concerned about being effected by the proposed regulation. They said that while employees do not cross the R-2 distances, the poles that are being set can cross the R-2 distances, but that the poles are wrapped in insulation material (blankets) prior to being set in the ground. Employees actually touch the pole at the base as it is being set, but employees wear insulated gloves. While it is being set, the top of the pole is blanketed. Once the pole is set and employees are installing Verizon equipment, the blankets under the neutral wire are removed so that the equipment can be installed (there is an approximate 40 inch clearance from the neutral line). Verizon employees do not breach the 	
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	<p>R-2 table while installing their equipment.</p> <p>The neutral wire can possibly be subject to voltage in very limited circumstances such as a result of lightning or where a power line is down and laying on the neutral line (e.g. as the result of an accident or storm damage). Dominion Power stated that they do not consider the neutral wire to normally be an energized part, and did not see any safety reason to regularly blanket the neutral line. DOLI agreed with Dominion Power's assessment and stated it would be willing to issue interpretative language to address this work situation that concludes that current work practices would not need to be changed in response to the proposed regulation.</p> <p>2. Storms/emergencies - Verizon said that during storms and emergencies they do no work until Dominion Power officials give clearance to them to work in an area. They also said they have special work procedures they utilize during such storms and emergencies, and agreed to provide copies of those procedures to DOLI. Cox Communications said they can run into exposure situations during storms and emergencies as well as in response to traffic accidents, tree falls, or to raise lines for houses under construction. Cox confirmed that they coordinate with the power company and keep hands off until the power company inspects the damaged pole and gives clearance to proceed with work. Cox Communications confirmed that they follow the same clearances as Verizon. Mr. Withrow related that DOLI follows the same approach as federal OSHA does during storms/emergencies by being in "consultation mode" for a set period of time after the event. DOLI again stated it would be willing to issue interpretative language to address this work situation.</p>	
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	<p>3. Street light brackets - Verizon said they are required by 1910.268 to test certain street light brackets to determine if they are energized under certain conditions. Under normal conditions the brackets are not supposed to be energized. Testing must be done bare handed, but the tool used protects the worker from up to 20,000 volts. If the bracket is found to be hot, Verizon leaves it alone and reports it to the power company. DOLI again stated it would be willing to issue interpretative language to address this work situation that concludes that current work practices would not need to be changed in response to the proposed regulation.</p> <p>4. Placement of new cables through use of silver strand line - Verizon said that during the installation of new cables, a silver strand line is first strung between poles and tensioned "banjo tight" before the cables are installed. Because there is a natural sag in the neutral line, it can come inside the R-2 approach distances to the tensioned silver strand line. Cox Communications said that they use Spanmaster and had the same issues as Verizon with regard to the neutral line. DOLI again stated it would be willing to issue interpretative language to address this work situation that concludes that current work practices would not need to be changed in response to the proposed regulation. (see discussion above concerning neutral lines during the setting of poles).</p> <p>5. Municipally owned poles and municipally owned or operated telecommunication systems - Although not directly affecting them, Cox Communication related that municipalities that own or operate their own telecommunication systems may have installations that are in violation of R-2 approach distances. They noted that municipalities are installing fiber optic networks and</p>	
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	<p>recommended DOLI contact the Virginia Municipal League (VML) and the Virginia Association of Counties (VACO). They also said they had responded to some incidents where localities had installations that got inside the R-2 approach distances. DOLI agreed that they would solicit comments from VML and VACO during the public comment process.</p> <p>Other issues discussed included:</p> <ol style="list-style-type: none"> 1. Dominion Power checked its records from 1999 to March, 2006, and could not find where they had charged Verizon for covering equipment in a manner that could be affected by the proposed regulation. Dominion Power agreed to check if there were any such instances involving Cox Communications. 2. DOLI clarified for Verizon that under the proposed regulation employees are still allowed to use just gloves, and are not required to use both gloves and sleeves. 3. Dominion Power felt the proposed language could be read to allow a telecommunication worker to knowingly work on an energized lines or equipment. All parties agreed that telecommunication workers are not authorized to engage in such work, and that it is not the intent of DOLI or the Board to allow such work. DOLI agreed that the language could be modified as part of the comment process to address this issue. 4. The group discussed whether the proposed language could in any way affect personal injury or worker's compensation law by changing in some manner the "minimal care standard." The group agreed that as far as their employees were concerned, they would be covered by Worker's Compensation laws and that the proposed regulation would have no effect on such cases." 	
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<p>John D. Sharer, Esq., Assistant General Counsel, Dominion Virginia Power</p>	<p>1a. Mr. Sharer spoke in favor of the proposed amendment, provided that certain issues and concerns of Dominion Virginia Power were addressed by the Board.</p> <p>1b. Mr. Sharer expressed concern over certain words and phrases used in the briefing package (“[g]iven the similarity of situational exposure in this instance between the General Industry Standard for Electrical Power Generation...and General Standard for Telecommunications...equivalent safety precautions are appropriate to eliminate employee exposure to equivalent hazards.”). He noted that the situational exposure of power employees and telecommunication employees is fundamentally different. As noted later in his comments, power employees work directly on live electrical lines and parts, while telecommunication employees are never supposed to actually work on live electrical lines or parts.</p> <p>2. Mr. Sharer noted that in a number of places in the briefing packages and in the proposed language of the regulation, there are references to telecommunication employees “working on” energized parts. Mr. Sharer noted that at the March 16, 2006, meeting between Department Staff, DPB Staff, and representatives of the telecommunications and power industries, it was agreed by all parties that telecommunication workers are not authorized to engage in such work, and that it is not the intent of the Department or the Board to allow such work.</p> <p>3. Mr. Sharer expressed a concern that the following sentence “does not clarify the important distinction between minimum approach distances and reaching distances”: “Moreover, <i>if every energized part within reach of the employee</i> were</p>	<p>1b. The Department agrees with Mr. Sharer’s comment and has modified the language in the briefing package for the final amendment to remove the words “situational exposure” and “equivalent.”</p> <p>2. The Department agrees with Mr. Sharer’s comment and has deleted references in the briefing package to telecommunication employees “working on” energized parts. The Department has revised the amendment language so that it will read in its final form as follows: <u>“The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are only considered insulation of that part of the employee’s extremities covered by the insulating gloves or insulating gloves and sleeves, or....”</u></p> <p>3. The Agency agrees that the highlighted language could cause confusion, so it has been deleted. In addition, the Department wants to make clear that in adopting the proposed amendment, it does not intend to change any current interpretations applied to language that remains unchanged in the current Telecommunications regulation, 1910.268, or the</p>
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	<p>insulated, electrical contacts involving other parts of the body, such as the employee’s head or back would be averted as well.” (emphasis added by Commenter).</p> <p>Mr. Sharer further elaborated that it is “conceivable that a telecommunications worker could be in compliance with the Table R-2 minimum approach distances yet reach out and touch an energized part. Accordingly, the Board should clarify whether everything within the telecommunications worker’s reach must be either covered or deenergized. If so, this may have a significant impact both on telecommunications companies and electric utilities.”</p> <p>4. Mr. Sharer felt a phrase in the Department’s briefing package referring to a procedure where a telecommunications employer wishing to work inside of approach distances must call the power company to either cover the power lines or disconnect the power, could leave a telecommunications employer with the mistaken impression that the power company would have to respond immediately to such a request. Mr. Sharer explained that any such request would have involve advance warning and prior consultation to discuss among other things, a schedule for the</p>	<p>current Electric Power Generation, Transmission and Distribution regulations at 1910.269 and 1926.950. Following is an excerpt from a federal OSHA interpretation concerning minimum approach distances in 1910.269, the Electric Power Generation, Transmission and Distribution Standard, from which the proposed amendment derives, and which addresses the Commenter’s concern:</p> <p>“As specified in Table R-6 of 1910.269 for phase to phase nominal voltages of 46.1 to 72.5 kilovolts, the minimum approach distance when phase to ground exposure is the concern is 3 feet (0.9 m) which is the clearance between the blade side on the bottom and the jaw at the top of the switch. To comply with this requirement, the employer must ensure that employees position themselves so that the minimum approach distance is maintained over the full range of anticipated movements. These include movements planned as part of the job and other movements that the employee could reasonably be expected to take, such as adjusting a hard hat or reaching for a tool. In short, employees must be positioned so that the employees and any conductive objects they handle, over the full range of their anticipated movements, are outside the minimum approach distance.” (Emphasis added.).</p> <p><i>Federal OSHA interpretation issued February 26, 1996, by John B. Miles, Jr., Director, Directorate of Compliance Program, addressed to Mr. John Cadick, the Cadick Corporation.</i></p> <p>4. The Agency agrees with Mr. Sharer’s comment, has modified the language in the briefing package, and has placed the following note in the briefing package:</p> <p><i>NOTE: When the telecommunications employer and the power company need to make temporary safety arrangements, such a request would have involved advance warning and prior consultation to discuss, among other things, a schedule for the work, and agreement on estimated costs and charges.</i></p>
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<p>Mr. Kenneth P. Shaw, CIH, National Manager – Safety Management, Verizon Telecom</p>	<p>work, and agreement on estimated costs and charges.</p> <p>5. Mr. Sharer noted that there were several phrases used in the Department’s briefing package (“electrical transmission workers” and “telecommunication electrical transmission workers”) that he was not familiar with and requested they be corrected.</p> <p>1. Mr. Shaw submitted the following written comment:</p> <p>“Verizon shares the desire of the Virginia Safety and Health Codes Board (the Board) to protect employees working aloft. However, Verizon is concerned that the amendment as written may be misunderstood with unintended results that substantial additional costs would be incurred by Verizon and other Telecommunication companies without any additional protections being provided to employees.</p> <p>“It is important to note that no Verizon employee should be performing work on electrical lines. Indeed, Verizon requires that its employees maintain safe approach distances so that they do not inadvertently come into contact with energized lines. As such, Verizon employees should not be exposed to the same hazards that electric company employees face and, further, there is no need to require the same protections for telecommunications employees as are required of electric company employees who actually work on energized lines. Verizon is concerned that the proposed amendments imply that it is acceptable for telecommunications employees to work closer to power lines than is now the case. Verizon is equally concerned that the regulations could be improperly construed to require additional protection even when</p>	<p>5. The Agency has corrected the references to eliminate any confusion they might have caused.</p> <p>1. As noted above in response to a similar comment from Commenter 2, the Agency agrees and has deleted references in the briefing package to telecommunication employees “working on” energized parts. The Department has revised the amendment language so that it will read in its final form as follows:</p> <p><u>“The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are only considered insulation of that part of the employee’s extremities covered by the insulating gloves or insulating gloves and sleeves), or....”</u></p>
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	<p>employees maintain the safe approach distances.”</p> <p>2. Mr. Shaw submitted the following written comment: “The provision of an approved insulating handle would require additional equipment to be purchased, stored, transported, inspected, Verizon does not believe that the following language is appropriate for a telecommunication standard:</p> <p>A. No employee shall be permitted to approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in subsection B (Table R-2) of this section unless: “</p> <p>As noted above, Verizon does <i>not</i> permit employees to handle electric conductors or energized conductive objects. The wording implies that it is permissible to approach and manipulate energized conductors or equipment using an insulating handle and Verizon believes that this implication may be dangerous. As such, the revisions could be construed as being less protective than the current wording of 29CFR1910.268 by introducing new procedures that are not currently permitted. At present, electrical training for telecommunication employees focuses on hazard recognition and avoidance, testing for energized equipment using a Voltage Detector, and proper use of insulating gloves. Manipulation of conductors (energized or not) and potentially energized power equipment attachments (i.e., hardware, power guy wires and conductive metallic components). Verizon believes that all manipulation of power conductors or power transmission equipment be performed by power utility workers only following safety procedures in 1910.269.”</p>	<p>2. The Agency agrees that the proposed regulation reference to the use of “insulating handles” is unnecessary in a telecommunications setting and could lead to confusion or unintended consequences. The Department has revised the amendment language so that it will read in its final form as follows:</p> <p><u>“No employee shall be permitted to approach or take any conductive object closer to exposed energized parts than shown in subsection B (Table R-2) unless:”</u></p>
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	<p>3. Mr. Shaw submitted the following written comment:</p> <p>“Verizon also believes that the following language should be deleted:</p> <p>“1. The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are considered insulation of the employee only with regard to the energized part upon which work is being performed);”</p> <p>Verizon presently provides insulating gloves and leather protective outer gloves that cover the hands and lower part of the forearm. Verizon does not presently provide insulating sleeves to be worn by employees. It is not permitted that employees work on energized parts (including conductors or energized metal parts. The insulating gloves are provided as a precaution in the event of incidental contact with an energized metallic object, when attaching a precautionary temporary bonding wire or for other procedures involving potentially energized equipment. In addition to the reasons noted above, Verizon objects to this language to the extent that this new language requires an additional item of protective equipment to be purchased, stored, transported, inspected, periodically tested, and worn,. Verizon notes that to the extent that such is required, additional specific training regarding this protective equipment would need to be provided to employees who would wear it (i.e., all employees who would wear insulating rubber gloves.). This would be costly and unnecessary. Again, Verizon does not permit employees to perform any of the installation, repair, or switching work operations included in 1910.269(1).”</p>	<p>3. Nothing in the proposed language would require the employer to provide insulating sleeves. The reference to “insulating gloves or insulating gloves and sleeves” (emphasis added) clearly gives the employer the option to provide to employees <u>either</u> “insulating gloves”, <u>or</u> “insulating gloves and sleeves.” No changes will be made to the final regulation in response to the comment.</p>
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	<p>4. Mr. Shaw submitted the following written comment:</p> <p>“Please note that Verizon finds the following language relating to approach distances acceptable as it is consistent with the present 1910.268 Table R-2.”</p>	<p>4. No change in the final regulation is needed in response to the comment.</p>
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All changes made in this regulatory action

Please detail all changes that are being proposed and the consequences of the proposed changes. Detail new provisions and/or all changes to existing sections.

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
16 VAC 25-90-1910.268(b)(7)		<p>(b) General. (7) Approach distances to exposed energized overhead power lines and parts. The employer shall ensure that no employee approaches or takes any conductive object closer to any electrically energized overhead power lines and parts than prescribed in Table R-2, unless:</p> <p>(i) The employee is insulated or guarded from the energized parts (insulating gloves rated for the voltage involved shall be considered adequate insulation), or</p> <p>(ii) The energized parts are insulated or guarded from the employee and any other conductive object at a different potential, or</p> <p>(iii) The power conductors and equipment are deenergized and grounded.</p>	<p>(b) General. (7) Approach distances to exposed energized overhead power lines and parts. The employer shall ensure that no employee approaches or takes any conductive object closer to any electrically energized overhead power lines and parts than prescribed in Table R-2, unless:</p> <p>(i) The employee is insulated or guarded from the energized parts (insulating gloves rated for the voltage involved shall be considered adequate insulation), or</p> <p>(ii) The energized parts are insulated or guarded from the employee and any other conductive object at a different potential, or</p> <p>(iii) The power conductors and equipment are deenergized and grounded.</p> <p>Rationale: The need for this rulemaking became evident to the Department during the investigation of a fatal accident in the Commonwealth. A telecommunications employee was fatally electrocuted when he apparently touched an uninsulated 7200-volt power line with his body. The victim had not</p>

	<p>16 VAC 25-75</p>	<p><u>16 VAC 25-75. General. Approach Distances</u> <u>A. No employee shall be permitted to approach or take any conductive object [without an approved in insulating handle] closer to exposed energized parts than shown in subsection B (Table R-2) unless:</u> <u>1. The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are [only] considered</u></p>	<p>put insulating material around the power line, nor was he wearing properly rated insulating gloves. Although the victim was not in compliance with any part of §1910.268(b)(7), the discrepancy between §§1910.268(b)(7)(i) and 1910.269(1)(2)(i) was identified during the legal review of the case.</p> <p>The current less stringent, Telecommunications Standard language in 1910.268(b)(7)(i) specifies that the wearing of protective gloves will qualify as insulation for any live electrical part in the area within the approach distances where the employee is working. Under the current standard, the employee can be legally exposed to uninsulated live electrical parts in his work area when working inside the approach distance, but only actually be protected from touching them with his hands (and possibly forearms) through the use of gloves. The standard requires no additional temporary blanketing or other means of insulation for nearby high voltage wires which might be inadvertently touched by other body parts of the employee while working inside the approach distances. Therefore, making 1910.268(b)(7)(i), General Industry Standard for Telecommunications, General Approach Distances, and 1910.269(1)(2)(i), General Industry Standard for Electric Power identical will provide safety protections for telecommunications workers equal to that already afforded general industry electrical transmission workers and more recently afforded construction industry workers.</p> <p><u>16 VAC 25-75. General. Approach Distances</u> <u>A. No employee shall be permitted to approach or take any conductive object [without an approved in insulating handle] closer to exposed energized parts than shown in subsection B (Table R-2) unless:</u> <u>1. The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are [only] considered insulation of [that part of] the employee's extremities covered by the insulating gloves or insulating gloves and sleeves) [only with regard to the energized part upon which work is being performed], or</u></p>
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		<p><u>insulation of [that part of] the employee[’s extremities covered by the insulating gloves or insulating gloves and sleeves] [only with regard to the energized part upon which work is being performed]), or</u></p> <p><u>2. The energized part is insulated or guarded from him and any other conductive object at a different potential, or</u></p> <p><u>3. The power conductors and equipment are deenergized and grounded.</u></p> <p><u>B. Approach Distances to Exposed Energized Overhead Power Lines and Parts</u></p>	<p><u>Rationale:</u> Telecommunications workers are not authorized to work on live electrical lines or parts and they are required to maintain safe approach distances so that they do not inadvertently come into contact with energized lines; therefore, the Department deleted references to telecommunications employees “working on” energized parts.</p> <p><u>2. The energized part is insulated or guarded from him and any other conductive object at a different potential, or</u></p> <p><u>3. The power conductors and equipment are deenergized and grounded.</u></p> <p><u>B. Approach Distances to Exposed Energized Overhead Power Lines and Parts</u></p>
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TABLE R-2 – Approach Distances to Exposed Energized Overhead Power Lines and Parts

Voltage range (phase to phase, RMS)	Approach distance (inches)
300 V and less	(1)
Over 300 V, not over 750V	12
Over 750 V not over 2 kV	18
Over 2 kV, not over 15 kV	24
Over 15 kV, not over 37 kV	36
Over 37 kV, not over 87.5 kV	42
Over 87.5 kV, not over 121 kV	48
Over 121 kV, not over 140kV	54

1. Avoid contact.

Regulatory flexibility analysis

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

- 1) The establishment of less stringent compliance requirements are prohibited under the federal-state plan agreement for the enforcement of occupational safety and health in the Commonwealth. The existing federal Telecommunications Standard language in 16 VAC 25-90-1910.268(b)(7)(i) specifies that the wearing of protective gloves and/or sleeves will qualify as sufficient insulation protection for any live electrical part in the area where the employee is working. Under the existing standard the employee can be legally exposed to uninsulated live electrical parts in or near the work area, but is only required to actually be protected from touching them with his hands (and possibly forearms) through the use of gloves and/or sleeves. The existing standard requires no additional temporary blanketing or other means of insulation for nearby high voltage wires which might be inadvertently touched by other body parts of the employee while working inside the approach distances. Establishment of less stringent compliance requirements would only serve to increase worker exposure to possible electrocution as well as be in violation of federal OSHA regulatory requirements.
- 2) The new final regulation does not include schedules or deadlines for compliance or reporting requirements.
- 3) The new final regulation does simplify compliance. The new regulation will make telecommunications requirements identical to 16 VAC 25-90-1910.269(1)(2)(i), General Industry Standard for Electric Power Generation Transmission and Distribution and will provide safety protections for telecommunications workers equal to that already afforded general industry electrical transmission workers and more recently afforded construction industry workers in 16 VAC 25-155; thereby, simplifying compliance requirements for all workers performing the same or similar tasks regardless of the type of industry in which they work.
- 4) The new final regulation does not establish performance standards for small businesses to replace design or operational standards required for worker protection in the new final regulation.
- 5) In compliance with federal law, there is no exemption of small businesses from all or any part of the requirements contained in the regulation. The Department, however, has drafted the new regulatory language to minimize costs for the regulated employers while still ensuring equivalent safety levels of electrical shock protection for telecommunications workers.

Family impact

Please assess the impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

This final regulation will have a positive impact on the institution of the family and family stability. If wage earners are less likely to be injured or killed while engaged in work on power lines, there will be fewer disruptions to the family income and family life from work-related accidents or deaths.

**16 VAC 25-75, Final Regulation to Amend the General Industry Standard for
Telecommunications, General, Approach Distances, §1910.268(b)(7)**

**As Adopted by the
Safety and Health Codes Board**

Date: December 6, 2006



16 VAC 25-75, Telecommunications, General, Approach Distances, §1910.268(b)(7)

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**TELECOMMUNICATIONS, GENERAL, APPROACH DISTANCES
16VAC25-90-1910.268(b)(7)**

~~(b) General.~~

~~(7) Approach distances to exposed energized overhead power lines and parts. The employer shall ensure that no employee approaches or takes any conductive object closer to any electrically energized overhead power lines and parts than prescribed in Table R-2, unless:~~

~~(i) The employee is insulated or guarded from the energized parts (insulating gloves rated for the voltage involved shall be considered adequate insulation), or~~

~~(ii) The energized parts are insulated or guarded from the employee and any other conductive object at a different potential, or~~

~~(iii) The power conductors and equipment are deenergized and grounded.~~

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**REQUIREMENTS FOR TELECOMMUNICATIONS, GENERAL,
APPROACH DISTANCES
16 VAC 25-75**

16 VAC 25-75. General. Approach Distances

- A. No employee shall be permitted to approach or take any conductive object ~~[without an approved in insulating handle]~~ closer to exposed energized parts than shown in subsection B (Table R-2) unless:
1. The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16 VAC 25-90-1910.269(1)(3) are ~~[only]~~ considered insulation of [that part of] the employee's extremities covered by the insulating gloves or insulating gloves and sleeves] ~~[only with regard to the energized part upon which work is being performed]~~), or
 2. The energized part is insulated or guarded from him and any other conductive object at a different potential, or
 3. The power conductors and equipment are deenergized and grounded.
- B. Approach Distances to Exposed Energized Overhead Power Lines and Parts

SAFETY AND HEALTH CODES BOARD

**REQUIREMENTS FOR TELECOMMUNICATIONS, GENERAL,
APPROACH DISTANCES
16 VAC 25-75**

TABLE R-2 – Approach Distances to Exposed Energized Overhead Power Lines and Parts

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1. Avoid contact.